

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-10. (Canceled)

11. (Currently Amended) A method for manufacturing a semiconductor device, comprising the steps of:

forming a semiconductor film having an amorphous structure over a first substrate;

irradiating the semiconductor film with a laser beam with scanning in a direction, thereby forming a first region and a second region in the semiconductor film; [[and]]

forming an integrated circuit comprising a first thin film transistor using the first region in the semiconductor film and a memory cell array comprising a second thin film transistor using the second region in the semiconductor film; film; and

forming an antenna,

wherein the first region is superior to the second region in crystallinity,

wherein the step of forming the integrated circuit and the memory cell array comprises a process of forming a gate electrode, and

wherein the step of forming the antenna is performed at the same time as the process of forming the gate electrode.

12. (Previously Presented) A method for manufacturing a semiconductor device according to claim 11, wherein the integrated circuit comprises:

a memory cell;

a microprocessor; and

at least one of a connection terminal, a rectifier circuit, a demodulator circuit and a modulator circuit.

13. (Currently Amended) A method for manufacturing a semiconductor device according to claim 11,

wherein the second thin film transistor comprises ~~a gate electrode~~, a source region and a drain region, and

wherein the gate electrode is electrically connected to one of the source region and the drain region.

14.-17. (Canceled)

18. (Original) A method for manufacturing a semiconductor device according to claim 11,

wherein the laser beam is a continuous wave laser beam, and

wherein the first region includes a crystal grain grown continuously in the direction of scanning the continuous wave laser beam.

19. (Previously Presented) A method for manufacturing a semiconductor device according to claim 11,

wherein an active layer of the first thin film transistor is arranged so that the direction of scanning the laser beam conforms to a direction in which an electric carrier moves in the active layer when electric current is flown in the first thin film transistor.

20. (Canceled)

21. (Previously Presented) A method for manufacturing a semiconductor device according to claim 11,

wherein the first substrate is selected from the group consisting of a glass substrate, a quartz substrate, a ceramic substrate and a metal substrate.

22.-23. (Canceled)

24. (New) A method for manufacturing a semiconductor device, comprising the steps of:

forming a semiconductor film having an amorphous structure over a first substrate;

irradiating the semiconductor film with a laser beam with scanning in a direction, thereby forming a first region and a second region in the semiconductor film;

forming an integrated circuit comprising a first thin film transistor using the first region in the semiconductor film and a memory cell array comprising a second thin film transistor using the second region in the semiconductor film; and

forming an antenna,

wherein the first region is superior to the second region in crystallinity,

wherein the step of forming the integrated circuit and the memory cell array comprises a process of forming one of a source electrode and a drain electrode, and

wherein the step of forming the antenna is performed at the same time as the process of forming the one of the source electrode and the drain electrode.

25. (New) A method for manufacturing a semiconductor device according to claim 24, wherein the integrated circuit comprises:

a memory cell;

a microprocessor; and

at least one of a connection terminal, a rectifier circuit, a demodulator circuit and a modulator circuit.

26. (New) A method for manufacturing a semiconductor device according to claim 24,

wherein the second thin film transistor comprises a gate electrode, a source region and a drain region, and

wherein the gate electrode is electrically connected to one of the source region and the drain region.

27. (New) A method for manufacturing a semiconductor device according to claim 24,

wherein the laser beam is a continuous wave laser beam, and

wherein the first region includes a crystal grain grown continuously in the direction of scanning the continuous wave laser beam.

28. (New) A method for manufacturing a semiconductor device according to claim 24,

wherein an active layer of the first thin film transistor is arranged so that the direction of scanning the laser beam conforms to a direction in which an electric carrier moves in the active layer when electric current is flown in the first thin film transistor.

29. (New) A method for manufacturing a semiconductor device according to claim 24,

wherein the first substrate is selected from the group consisting of a glass substrate, a quartz substrate, a ceramic substrate and a metal substrate.

30. (New) A method for manufacturing a semiconductor device, comprising the steps of:

forming a semiconductor film having an amorphous structure over a first substrate;

irradiating the semiconductor film with a laser beam with scanning in a direction, thereby forming a first region and a second region in the semiconductor film;

forming an integrated circuit comprising a first thin film transistor using the first region in the semiconductor film and a memory cell array comprising a second thin film transistor using the second region in the semiconductor film;

forming an antenna over a second substrate; and

attaching the first substrate to the second substrate so as to sandwich the integrated circuit, the memory cell array and the antenna between the first substrate and the second substrate,

wherein the first region is superior to the second region in crystallinity.

31. (New) A method for manufacturing a semiconductor device according to claim 30, wherein the integrated circuit comprises:

a memory cell;

a microprocessor; and

at least one of a connection terminal, a rectifier circuit, a demodulator circuit and a modulator circuit.

32. (New) A method for manufacturing a semiconductor device according to claim 30,

wherein the second thin film transistor comprises a gate electrode, a source region and a drain region, and

wherein the gate electrode is electrically connected to one of the source region and the drain region.

33. (New) A method for manufacturing a semiconductor device according to claim 30,

wherein the laser beam is a continuous wave laser beam, and

wherein the first region includes a crystal grain grown continuously in the direction of scanning the continuous wave laser beam.

34. (New) A method for manufacturing a semiconductor device according to claim 30,

wherein an active layer of the first thin film transistor is arranged so that the direction of scanning the laser beam conforms to a direction in which an electric carrier moves in the active layer when electric current is flown in the first thin film transistor.

35. (New) A method for manufacturing a semiconductor device according to claim 30,

wherein the first substrate is selected from the group consisting of a glass substrate, a quartz substrate, a ceramic substrate and a metal substrate.

36. (New) A method for manufacturing a semiconductor device, comprising the steps of:

forming a semiconductor film having an amorphous structure over a first substrate;

irradiating the semiconductor film with a laser beam with scanning in a direction, thereby forming a first region and a second region in the semiconductor film;

forming an integrated circuit comprising a first thin film transistor using the first region in the semiconductor film and a memory cell array comprising a second thin film transistor using the second region in the semiconductor film;

forming a base film over the first substrate before forming the semiconductor film;

forming a stripping layer over the base film before forming the semiconductor film;

stripping the integrated circuit and the memory cell array from the first substrate;
and

attaching the stripped integrated circuit and the memory cell array to a second substrate,

wherein the first region is superior to the second region in crystallinity.

37. (New) A method for manufacturing a semiconductor device according to claim 36, wherein the integrated circuit comprises:

a memory cell;

a microprocessor; and

at least one of a connection terminal, a rectifier circuit, a demodulator circuit and a modulator circuit.

38. (New) A method for manufacturing a semiconductor device according to claim 36,

wherein the second thin film transistor comprises a gate electrode, a source region and a drain region, and

wherein the gate electrode is electrically connected to one of the source region and the drain region.

39. (New) A method for manufacturing a semiconductor device according to claim 36,

wherein the laser beam is a continuous wave laser beam, and

wherein the first region includes a crystal grain grown continuously in the direction of scanning the continuous wave laser beam.

40. (New) A method for manufacturing a semiconductor device according to claim 36,

wherein an active layer of the first thin film transistor is arranged so that the direction of scanning the laser beam conforms to a direction in which an electric carrier moves in the active layer when electric current is flown in the first thin film transistor.

41. (New) A method for manufacturing a semiconductor device according to claim 36,

wherein the first substrate is selected from the group consisting of a glass substrate, a quartz substrate, a ceramic substrate and a metal substrate.

42. (New) A method for manufacturing a semiconductor device according to claim 36,

wherein the second substrate is flexible and selected from the group consisting of a paper substrate and a plastic substrate.

43. (New) A method for manufacturing a semiconductor device according to claim 36,

wherein the step of stripping the integrated circuit and the memory cell array from the first substrate comprises the steps of:

forming a groove in a peripheral region of the integrated circuit and the memory cell array so as to expose the base film through the stripping layer; and

flowing an etching gas into the groove, thereby removing the stripping layer.